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MAY, 1913



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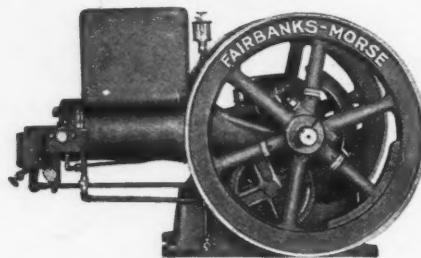
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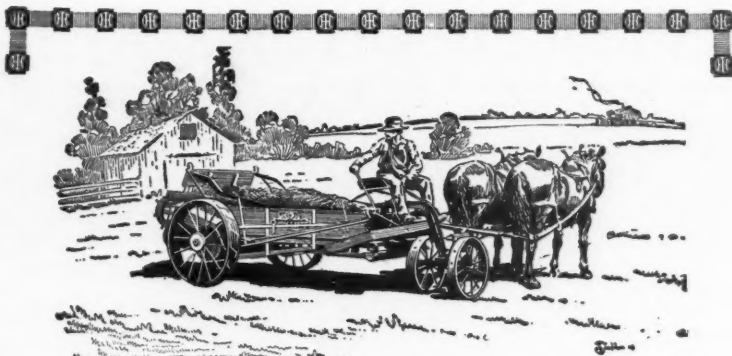
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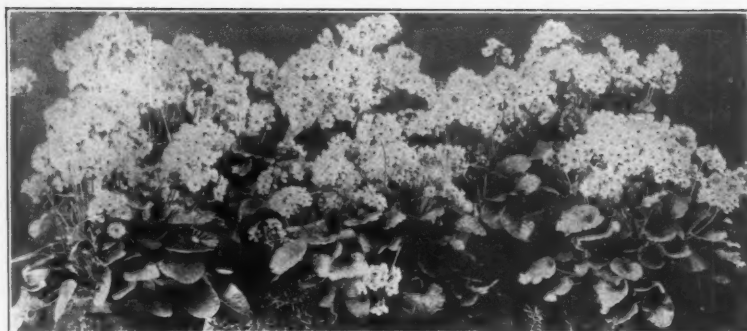
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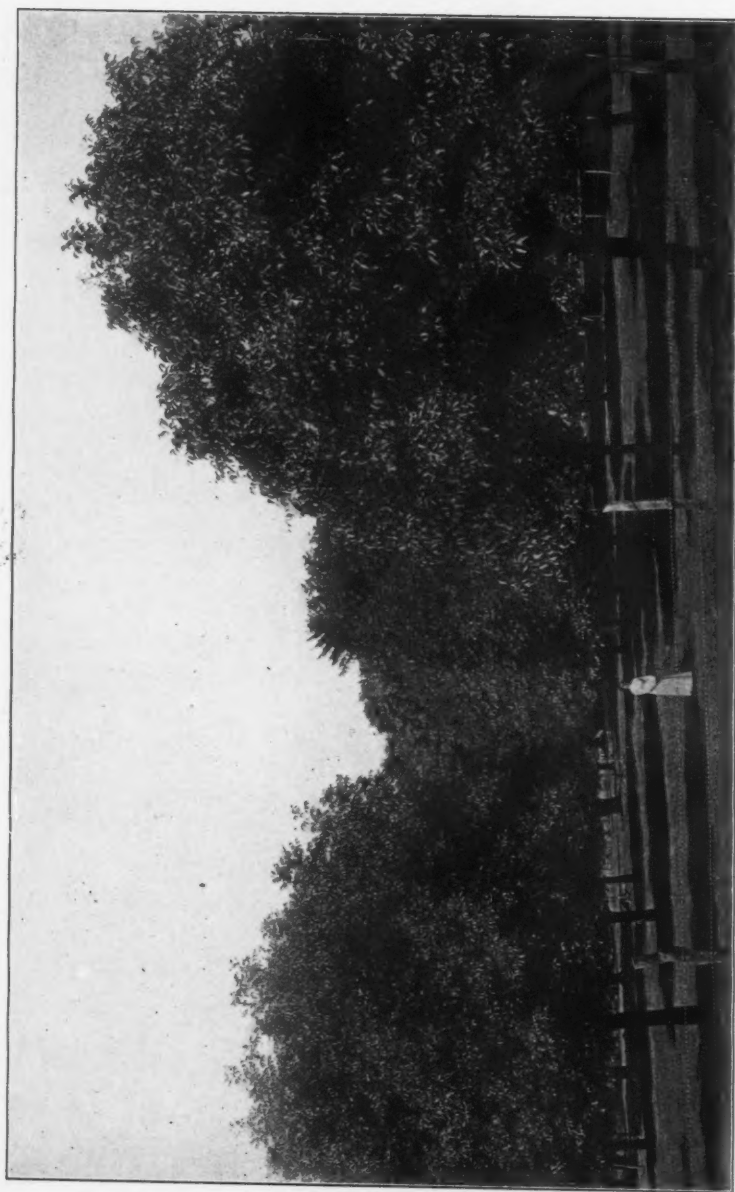
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A 21-YEAR-OLD PERSIAN WALNUT ORCHARD.



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## THE PRESENT STATUS OF NUT CULTURE IN NEW YORK STATE

By C. A. Reed

U. S. Department of Agriculture, Washington, D. C.

THE present nut producing situation in the State of New York cannot be discussed in terms of culture, for the use of that word implies active coöperation with nature upon the part of man. As a matter of fact, the energies of man have not been in harmony with nature, but have been antagonistic to her efforts to produce in nut form the food elements upon which his existence depends. If in the past development of the state the best nut bearing trees had been spared and protected instead of being used for timber purposes as were others of the forest there is no telling what the present situation would have been. No doubt, nuts would have come to figure much more prominently as staple articles of food than they now do, but at best, there would have been a splendid assortment of parent trees to serve as stock upon which to establish valuable varieties.

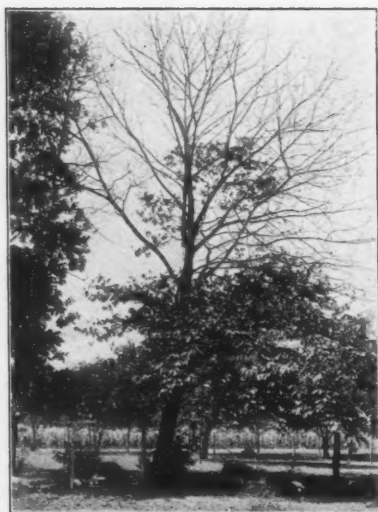
Nine species of trees bearing highly edible nuts are native to the greater portions of New York State. In probable order of past importance these are the American chestnut (*Castanea dentata*), the shagbark hickory (*Hicoria ovata*), the pignut hickory (*Hicoria glabra*), the black walnut (*Juglans nigra*), the shellbark hickory (*H. laciniosa*), the butternut (*J. cinerea*), the two hazels (*Corylus Americana* and *C. rostrata*) and the American beech (*Fagus ferruginea*). There are also four species of foreign walnuts

which seem more or less suited to cultivation in New York State and two species of chestnuts which in the past have given considerable promise but concerning which there is now great uncertainty. They will be discussed more fully later on.

Much might be said regarding the lost opportunities and mistakes of the past, but we all recognize the fact that little effort either to develop or even preserve the native nut trees has yet been made and that the situation is far from what it might have been. Therefore, it is the purpose to confine this discussion to present and future problems rather than past misdeeds. Further, it is addressed to those who have already decided to plant nut trees rather than to any who have not fully considered the matter. Instruction, not persuasion, is the present mission. As nearly as possible the view point taken is to be that of the intending planter.

In order of sequence questions by the prospective planter are, what to plant; where can the stock be obtained; what soil is best adapted to the species or variety; what culture is necessary; when will bearing begin and what will be the profits. These will be followed by endless other questions regarding important details, but both space and disposition preclude exhaustive depth of discussion at the present time.

Of the nut trees that are at all suitable for planting in New York



AN AMERICAN CHESTNUT BADLY AFFECTED WITH BLIGHT.

State at the present time the American chestnut is the most to be avoided. It is native to a large portion of the state, capable of adapting itself to many soils, very prolific, and the quality of the nuts is exceedingly pleasing, but as a species it is threatened with extinction by a fungous disease (*Diaporthe parasitica*) commonly known as the chestnut-bark disease. Since the discovery of this disease on Long Island in 1904 chestnut trees have died by thousands in New York and other states into which the disease has spread. The European species of chestnut (*C. sativa*) is also highly subject to this malady and as more trees of the European varieties (principally the Paragon) have been planted than of all others combined, and no adequate means of controlling the disease has been found, the seriousness of the danger to chestnut orchards already planted is apparent. To some extent the Japanese-American hybrid chestnuts are also susceptible but how seriously so far has not been ascertained. However, it has been noted that thus far these hybrids have been

quite resistant, and with this as a clue, efforts are now being made to develop strains of chestnuts practically if not altogether immune to the blight.

The Japanese chestnuts (*C. Japonica*) are larger and usually more prolific than are those of the American species but they are rarely of as good quality. Character of the nut as well as resistance of the tree to disease must therefore be kept in mind if chestnut trees suitable for orchard planting are to be developed.

Next to the chestnut in order of past importance we have placed the shagbark hickory. Together with the other species of the hickory, it is like the chestnut in that it is threatened with extinction by a natural enemy, but unlike that species in that its danger is due to an insect pest (*Scolypus quadrispinosus*) commonly known as the hickory barkbeetle rather than to a fungous disease. However, we have assurance<sup>1</sup> that by cutting and



THE NATIVE BLACK WALNUT FROM WHICH IMPROVED VARIETIES MUST BE SELECTED.

burning all branches and trees during the first winter after their death, the new broods can be destroyed and the insect kept in check. It would seem, therefore, that the culture of the hickories can safely be encouraged.

The fruits of the pignut hickory are seldom heard of as edible products.

<sup>1</sup>Hopkins, A. D. U. S. Dept. of Agr., Bureau of Entomology Circular No. 144.

This is doubtless due to the name rather than because of a lack of merit, as to a large extent these nuts are sold as shagbarks.

The shellbark hickory attains a degree of prominence, because of the size of its nuts, which is perhaps more than it deserves. The nuts are usually large and the kernels of good quality, but as a general thing, the shells are thick and difficult to crack. The species is less common than are either of the two previously discussed as in its natural range it is confined to a few counties in the south central portion of the state.

The black walnut and the butternut have no serious natural enemies like those of the chestnut and the hickory. Both are native to large portions of the state and capable of adapting themselves to wide ranges of cultural conditions. The nuts of both are ordinarily thick-shelled and difficult to crack, but vary enough in these respects to offer inviting fields for selective breeding.

The native hazels have received little attention. The two native species previously mentioned are common to much of the state but cultural interest in the genus has been confined to the European species which thus far have not been able to adapt themselves to New York conditions. A fungous disease moderately severe with the native species, becomes virulent with the European hazels, and on this account the cultural status of the European hazels in New York State is not unlike that of the American and European species of chestnuts. The building up of a hazel nut growing industry appears to be dependent upon the selection and development of stock from the native species.

The American beech is more often spoken of as a nut tree in books than elsewhere. Its nuts are delicious but difficult to extract from the shells, and too small to be of commercial importance. Nowhere, so far as there is record, has this species ever been propagated solely for its nuts.

Of the foreign nuts the European and Japanese chestnuts have already

been discussed. There are four exotic species of walnuts worthy of attention; two, *J. cordiformis* and *J. sieboldiana*, are from Japan; one, *J. Mandschurica* is from northern China and the last *J. regia* is from Circassia,<sup>2</sup> a region of western Caucasus.

The first three are of importance chiefly because of their hardiness and the opportunities they offer of improvement by selective breeding. The nuts of the first two are smaller than are those of the American black walnut; of little if any better quality; quite as difficult to crack and so far as New York State is concerned, not more hardy. However, they bear at an earlier age and are somewhat more prolific. The species *Mandschurica* is less well known, as it has not been long introduced. In outward appearance the nuts of this species greatly resemble those of our American butternut. Owing to the small size of the nuts of the Japan species they meet with very little demand in the markets, consequently there is nothing to encourage their commercial planting at the present time.

*J. regia* is the species most commonly known as the English walnut, but, it was not native to England. Early history shows<sup>3</sup> it to have been introduced by the Greeks from Persia and for that reason we have been educated into calling it the Persian walnut. From Greece it appears to have been carried to Rome, and to other parts of the world. Recent authority<sup>4</sup> holds that the true origin and natural range of this species is in Circassia, a region of Western Caucasus and therefore it ought properly to be called the Circassian walnut. No matter what its proper name may be, this species has long been tried in New York and other Atlantic Coast States, but the usual result has been that the trees have been unable to endure the climatic conditions for any

<sup>2</sup>Sudworth, George B. U. S. Dept. of Agr., Forest Service Circular No. 212.

<sup>3</sup>Nut Culture in the United States, U. S. Dept. of Agr., issued in 1896.

<sup>4</sup>Sudworth Geo. B., U. S. Dept. of Agr., Forest Service Circular No. 212.

number of years. Recently, however, several individual trees in New York and neighboring states have appeared which are apparently of sufficient merit, including hardiness, to offer the foundation stock for varieties suitable for at least conservative, commercial planting in favorable locations.

In closing, it may be well to call attention to a few matters which the prospective nut tree planter in New York State must not overlook.

1. Plant only budded or grafted trees.

2. The mere operation of budding or grafting adds nothing to the value of the tree. The improvement is in the replacing of the top of a less desirable tree with one from a more desirable tree.

3. There are now practically no available nursery grown nut trees of varieties suitable for planting in New York State. There are seedlings in abundance but there are few budded or grafted trees.

4. In order to develop good varieties the trees bearing nuts of the best quality, the proper thinness of shell, the easiest to crack, and in the greatest quantity, must be found. From such trees, buds or scions must be taken for propagation by budding or grafting.

5. At present commercial planting of pecan trees in New York State is unjustifiable, as no varieties have yet demonstrated their hardiness in this latitude.

6. Almonds must be left out of consideration. Being very early bloomers and easily killed by light frosts following the blooming period, their culture in the United States has thus far been restricted to certain favored districts in the far western and southwestern states.

7. Propagation of nut trees by asexual methods is not an easy undertaking. It is therefore, usually much more satisfactory to obtain budded or grafted trees from experienced nurserymen.

A number of agencies are now at work endeavoring to build up the nut growing industries of the United States. Various Associations of Nut Growers, Nut Exchanges, State Agricultural Experiment Stations and Colleges, and the Federal Department of Agriculture at Washington, D. C., are all doing what they can in that direction. The proper representatives of these institutions will examine any nut specimens sent them and will report to the sender regarding the evident value of the nuts for new varieties. They will also give such other information regarding nut culture as they may be able.

## THE THIRTEENTH ANNUAL BANQUET

*By E. C. Heinsohn, '15*

**S**ERVED in the Cafeteria of the Home Economics Building, the thirteenth annual banquet, held on March 26th, surpassed in excellence all such previous affairs. The Cafeteria, with its low ceiling and cozy atmosphere proved an ideal banqueting hall. Fully 350 sat down to a well prepared and well served repast. As most of the preparations, except some of the cooking, was done entirely by the girls and men of the college, the feast was doubly enjoyable. The tables, with a pretty red and white color scheme,

with various plants and flowers scattered here and there, looked very attractive. Aided by men of the college, the girls who had complete charge of the serving, are to be complimented for the merit of their work. Indeed the banquet, being the first affair held in the Home Economics Building for the agricultural student body, may well be spoken of as a big house-warming party.

After all had enjoyed a most hearty meal, Toastmaster C. W. Whitney, '13, arose. With some very witty remarks,



he introduced W. H. Bronson, '13, student representative, as the first speaker of the evening. Mr. Bronson choosing as his subject some of the important student problems, first discussed the "Student Loan Fund," a fund to be raised in part from the student body, for the purpose of helping needy students. Next he described plans for a General Student Building where the classes and student organizations could hold their meetings, with recreation rooms and the like. In reference to the honor system, he declared that the main reason why it is not working as well as it ought, is lack of publicity. One solution is to attach a coupon to the freshmen registration blanks in September, and in February affix another on which the freshman must vote yes or no, whether or not he wants the honor system. Lastly he told of the amendment to the constitution of the Agricultural Association, wherein most of the business will be done by a representative committee, and that the association will have at least two meetings a year, with well known men as speakers.

Following Mr. Bronson came Professor Tuck, in behalf of the faculty. Speaking of education, he declared that the only education worth while comes from effort and sacrifice. In order to help its children to become better fitted for life, the State is spending vast amounts of money and in return expects their help in the further development of the state. Therefore, all should make the best of their opportunities while at college. The speaker, now turning his attention to the question of fraternities, urged that the tendency prevalent in the group idea to center the interests of the men in small gatherings should be fought, and the men encouraged to do all they can for their University. In hearty approval of the student fund, the professor suggested that action begin at once and \$1,000 be raised this spring from the students. The alumni and business men should not be approached for help until the initial steps have been taken by the students themselves.

The next number on the programme was selections by the Varsity Quartet.

Their songs were enjoyed by a very appreciative audience.

Now came the speaker of the evening, the Hon. H. B. Winters, First Assistant Secretary of Agriculture of New York State. The world, said Mr. Winters, expects more of college men because they are trained. At present there are comparatively few well managed farms in this state and therefore it behooves the younger generation to increase this number. When the student goes back to the farm, the first thing to do is to make the home and surroundings as attractive as possible. The herd of cows should be improved by culling out the poor and adding pure breds, community breeding should be established, and many other improvements made. In New York State few of the seeds are raised by the farmers themselves, a condition which ought to be remedied. Here lies an excellent field for the young man. Living conditions, continued the speaker, need much improvement; the home should be equipped with a furnace, with running water, telephone and the like. To the country minister, a force in the country life movement, all possible help and support is due. There should be built up beautiful country villages, for village life, where everyone is known by his first name is ideal.

Such an event as this banquet would be incomplete without some remarks from Dean Bailey, the next speaker. He chose for his subject extension work, one of the most necessary parts of an agricultural college. His speech is given elsewhere in this issue.

Professor Rice, the last speaker, gave an illustrated talk in the auditorium on "Early Days in the College." In those days, he stated, altho the faculty of the college were greatly handicapped by lack of facilities, and altho they did not know as much about the science of agriculture as they now do, nevertheless, they accomplished excellent results. One of main reasons for the success of the college is the confidence of the farmers of the state, which has been gained in part by the excellent crops which have been produced on the university farms.

## THE SURGERY IN THE ORCHARD

By J. P. Evans

**T**REE surgery is the science of tree preservation but must not be confused with forestry. Generally speaking the tree surgeon treats trees that are worth much more than their lumber value and he devotes more time to them than a forester can afford to do.

Now that the value of our old neglected orchards has been recognized and we are rejuvenating them, the field of the tree surgeon has broadened. Tree surgery is needed in the orchard. But the orchardist who must grow apples at a profit is unable to employ the services of an expert and consequently the trees are left untreated. However, any one who understands the

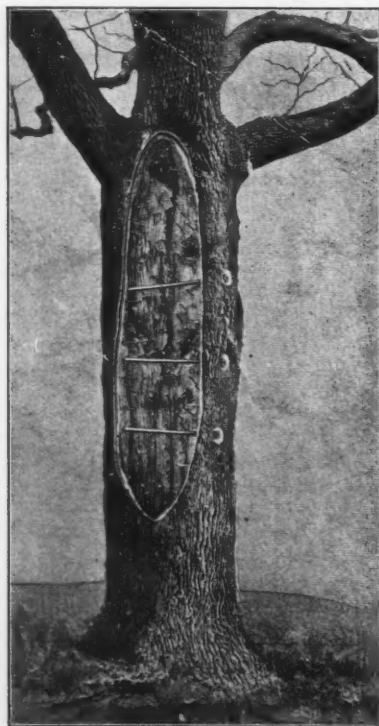
fundamentals of tree repair and can apply them to the individual case can do his own tree surgery. Therefore, let me state some principles which must be understood before any tree can be treated successfully.

In the first place all trees with sharp weak crotches and limbs that are apt to be overloaded should be braced either with bolts through or just above the crotch, or with a chain or loghooks between the limbs; or perhaps both methods should be used. Here is an instance when the individual must use his own mechanical ingenuity to decide which method is best and what sizes of chain and loghooks and bolts should be used. In the case of large limbs, the loghooks should be screwed in about halfway between the tops of the limbs and the crotch. Then the limbs should be drawn up far enough with block and tackle so that when the chain is hooked over the logs and the tackle released it will be tight.

For the treatment of cavities, the tools that are used most are an inch and a half gouge and a fairly heavy mallet. A small straight edge chisel will also be needed for edging the cavity and tracing the bark back.

The first step is to open up these old rotten cuts and any other exposed portions of the tree. All the decayed wood should be thoroughly cleaned out and in order to avoid further infection, should be burned. The edge of the cavity's face should be straightened and the bark should be traced back an eighth of an inch from the edge of the sapwood so that the cement filling can be brought just flush with the sapwood. During the entire operation care must be taken not to bruise the edge of the bark and the edge should also be painted to keep the cambium layer from drying out.

In studying fungous growth, since we find live, active mycelium in the apparently solid wood, the interior of the cavity should be sterilized with corrosive sublimate in wood alcohol



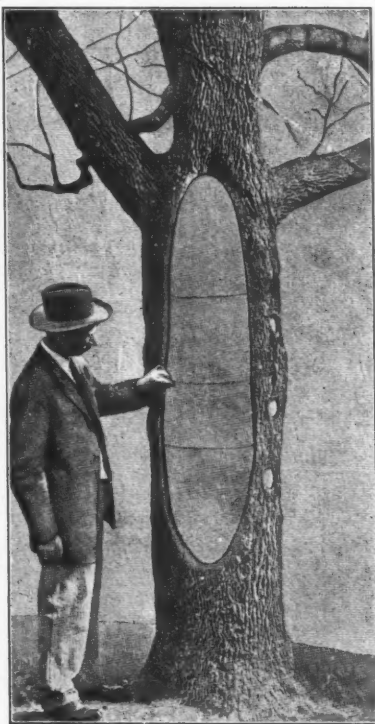
CAVITY IN A TREE READY TO BE FILLED WITH CONCRETE.



using a 4 to 1000 solution or four tablets to a pint of alcohol. This will penetrate from three to five-eighths of an inch. Care should be taken in applying this sterilizer to prevent it from getting on the bark. Next the interior of the cavity should be waterproofed. Coal tar may be used unless the tree or limb being treated is a mere shell. In such a case if the tar contains much creosote there is danger of penetrating as far as the cambium and killing the tree or limb. For this reason never use carbolineum nor creosote for any kind of waterproofing on a tree. In the case of a shell cavity, pine tar and resin may be used. Four and one-half pounds of resin should be used to a gallon of pine tar. This mixture should be boiled half an hour after the resin has dissolved. It should be applied warm but not so hot as to burn the bark.

If the cavity is so large that the swaying of the tree will crack the cement, it will have to be reinforced with five-eighths or three-fourths of an inch bolts. Countersinks should be made at the end of the bolt holes so that the washers and nuts will be back of the bark. When the cavity is filled, these countersinks should be filled in the same way. Jam nuts and washers should be used on the inside of the cavity. There are different ways of reinforcing the cement when the cavity is large enough to warrant reinforcing, such as studding the interior with spikes or running a piece of wire back and forth on staples from the top to the bottom of the cavity, three or four inches back of the cavity's face. A cavity of this size should be cut wider at the back than it is at the face.

The cement should be mixed three parts of good sharp sand to one of cement. Use no more water than is necessary to give the cement a good sticking quality. The cement should be put into the cavity in sections with layers of tar paper in between, so that when the cement sets it will still be in sections, thus giving the job more elasticity. Then when the tree sways, if the aforementioned bolts have been



TREE AFTER BEING TREATED.

properly placed and tightened the cement will sway with it and the tree will sway as a whole.

The cement should be rammed in tight and allowed to set for a hour or two before the finishing is done. Pieces of burlap or cement sacks nailed over the face of the cavity will make the best forms when forms are necessary. After the filling has dried sufficiently, the forms should be removed and the job finished. A small trowel may be used for finishing but much better work can be done with a moulder's slick. In slicking the job first get the edge clearly defined by running the slick around the cement on the protruding edge of sapwood and in finishing try to preserve the original contour of the tree. After the cement has set at least twenty-four hours and

is hard, the protruding sheets of tar paper should be trimmed off and the job should be given a thin coat of coal tar. There are two reasons for doing this, first the coal tar will make the job less conspicuous, and second, the small crack that has formed between the edge of the cement and the sapwood must be filled so that no moisture can get behind the filling. The paint that has been applied to the edge of the bark will protect it from the tar. Later when the bark has grown over the edge of the cement, the cavity will be hermetically sealed.

And now, why is it that so many orchards contain so much decayed wood? There are two reasons. Most old orchards contain many weak crotches that hold water and form water pockets. Every winter the water in these crotches freezes, the ice expands and the crotch is split down a little farther, and every once in a while we have a limb splitting off and the

wound is untouched. But a still greater reason for cavities is that when cuts have been made they have not been waterproofed. The importance of waterproofing all cuts having a diameter of  $1\frac{1}{2}$  inches or more cannot be overestimated. Lead paint serves fairly well as a waterproofer but the cuts must be repainted every year until the cuts have grown over. Coal tar which does not contain much creosote is better because it will last longer. But while care must be taken to cover the center of the cut well, very little can be put around the edge for it will cause the bark to die back a little. Pine tar and resin (mixed as mentioned before) makes the best but also the most expensive waterproofer. However, it is probably just as cheap in the end as any other for the reason that it does not injure the bark and that one application makes the cut waterproof for all time. An ounce of waterproofing is worth several pounds of cement.

## LINCOLN AGRICULTURAL SCHOOL

*By Bro. Barnabas*

Lincolndale, N. Y.

THAT quaint character, David Harum, in the very interesting book of that name tells somewhere within its pages of his very important bookkeeper who could never overcome any difficulty unless David was at his back, to push him out of it. So it has been with the dependent boy—always, there has been someone to stand behind him and be a prop for him. This has gone on from time immemorial but, some five years ago, an unique work was started under the direction of the Christian Brothers, to foster a new ideal in the minds of dependent boys. That ideal was to fit the dependent boy to stand on his own feet and to plough his way through the world.

The Lincoln Agricultural School, in the northern hills of Westchester County, is the place where the dependent city boy is given this wonderful

opportunity to develop character and stability. A two-fold object was kept in view with the commencement of this work: 1st—To remove such dependent boys from the congested city districts where the best opportunities were denied them; 2d—By a system of sympathetic care and special training to fit them to take the places in the rural sections vacated by so many of the country boys. Here, the boys, varying in ages from 12 to 16 years, are received.

The boy, as has been said, is a dependent, oftentimes practically without schooling of any kind and ill-nourished. Every available force is brought to bear to remove the old obstacles of ignorance and physical deficiency and the boy is built up and strengthened in his bodily requirements in order to give him the stimulus



YOUNG DAIRYMEN AND PRIZE COWS

for self-development, for it is perfectly logical to assume that you cannot start a boy on the road to self-conquest and development until he is physically fit to make the effort.

We have turned our attention to the wonderful field of agriculture and we find that the boy responds in a measure simply marvelous. He comes in close touch with the great number and variety of farm animals and every sympathetic quality of his mind is developed through contact, in the care and handling of these animals. He is taught the quality of the milch cow, how to care for it, how to feed it, how to keep it clean, how to record his milk production for each cow, the feeding records, the sanitation of his dairy for the production of clean milk and, lastly, proper breeding for the continuation of his herd. A feature at Lincoln School is the maintenance of cattle under the Bang System, a work which is regarded as one of the most necessary and progressive for the elimination of tuberculosis in cattle.

The boy studies the relation of farm crops to the needs of his dairy and learns how to produce his crops in all their various phases—vegetable gardening, fruit culture, berrying, orchards, poultry and pigs in their turn receive

the attention of the boy. His work, fortunately, is studied under working conditions, which blend with the theoretical studies in the class rooms.

After the boy has remained at the school until such time as he is deemed fitted to take his place in the work-a-day world, he goes to a very carefully selected home in the rural districts, there to bring into operation the training that he has received at Lincoln Agricultural School.

The School has 600 acres of land and 150 head of cattle, a large piggery and poultry houses, and is equipped in every way with modern buildings and machinery for the proper training of these boys.

The number of boys accommodated is about 250. Every one of these boys is given this practical course at Lincoln and is in every respect fitted by its training to become a progressive, aggressive agriculturalist. Such boys bring new life to the agricultural districts and become most worthy and acceptable members of the rural communities in which they locate. They are no longer dependent boys, but boys well equipped to stand on their own feet and boldly face the world as self-respecting, self-supporting young Americans.

## WHAT IS EXTENSION WORK?

By L. H. Bailey

EDITOR'S NOTE.—Governor Sulzer's Committee of Inquiry has recommended that the extension work in agriculture be made a unified state program. Director L. H. Bailey took this subject for the theme of his remarks before the Thirteenth Annual Banquet of the students of the State College of Agriculture at Ithaca on March 26, 1913, and explained what is now understood to be extension work, quoting mostly from former addresses.

**E**XTENSION work in agriculture comprises all educational efforts at the homes and on the farms of the people, and also such work at the institution itself as is more or less temporary and that centers directly in interests away from the institution. Extension work is welfare work, and is properly a necessary part of an institution that is maintained by the people for the service of the people.

Extension work should aid the people in the solving of their own problems of farming and also the social, economic and educational problems of farming communities. To this end, it is necessary that trained men and women be available in many different lines of agricultural work. Persons must be specially trained for this work, as well trained as for regular teaching or for research or administration.

The temptation is to use extension work merely as a means of publicity of the institution. This will fail in the end, and it will react unfavorably on the institution itself. The whole motive must be *sincerely to help the people*, not to push or advertise the institution, nor to make publicity for any person.

If the colleges of agriculture, and other rural institutions and agencies, ever come to be dominated by the desire to aggrandize themselves, or to exploit the people for the sake of appropriations, they will fail of their purpose and be repudiated by the people. Only so long as they have the spirit of service and of substantial disinterested work will they have reason permanently to exist.

It is proper that every public institution that is doing good work at home should extend itself to the people, but it is well to bear in mind that it should not begin the process until it has something to extend. Extension efforts

should be the result of work rather than the beginning of work.

One is likely to make the mistake of beginning the extension work first, whereas the extension work should grow gradually as the institution grows and be the natural expression to the people of the work that arises in the institution itself.

The people should not be too anxious to have extension work issue from any particular department of the institution. The extension work should come in the process of time, as the work ripens, and under such conditions it will be substantial when it comes and will produce real results.

What any locality gets in extension work should depend directly on what it wants and what it puts into the work. The rapidly growing farm-bureau work is an illustration of the fact that farmers are now taking the initiative in work in the localities, often supplying even a good part of the funds. At this day, extension should meet demands rather than make demands.

Extension enterprises are of many kinds,—of any kind whereby a department or institution or organization may extend and apply itself to its constituency. Some of the extension methods in agriculture are itinerant lectures, institutes, extension schools, reading-courses, traveling-libraries, publication, farm trains, tests on farms and in gardens, follow-up work of many kinds, demonstration farms, farm bureaus or agencies, organized correspondence. Actual demonstration, and work directly with persons on their special problems, are in the end the best form of extension work. In the end, there must be sustained teaching in the localities.

The widespread extension effort is one of the most hopeful applications of



the time. It may also be one of the most inefficient, depending on how it is done and particularly on the motive that propels it. We have now passed the early experimental stages in extension work. To be most useful, it *must be well organized*,—as well organized as any work at the institution itself.

While extension work should be organized, the organization should not be of the dictator kind. The *spirit of free personality* in work is absolutely essential. All domineering and institutional selfishness must be eliminated. The autocratic type of organization cannot do effective extension work.

Everything depends in the end on *the spirit of the place*.

The many educational agencies are now fairly established, and the country people in general are aware of the aids that they may secure; and they are also aware for the most part of the deficiencies. There are some regions and places, of course, into which extension enterprises must be carried bodily and as a gift; but these are now relatively few. It is best to let the desires originate in the people themselves even if it is not as rapid as some of us would wish, and to be cautious of the plans for those who sit in offices.

Speaking for the New York State College of Agriculture, it was formerly our practice to pay all the traveling expenses of members of the staff in the several lines of extension work. Demands for assistance from the College grew very rapidly. During this time we had an opportunity to study the situation. Two facts became outstanding: 1st, that our appropriation would always be inadequate to meet the needs of the state; 2d, that we were sending assistance to many communities that were able to pay something toward these expenses themselves. We found that many communities took a deeper interest in a particular piece of extension work when there was contribution on the part of the community toward the expenses; the people naturally felt as if they were partakers rather than on-lookers.

As a result of these observations, we have finally arrived at the policy, excepting some special reason to the contrary, of withholding until each community, society or individual is ready to meet the traveling expenses dollar for dollar. There is no charge in such cases for salary or per diem.

The policy has proceeded successfully with the extension schools, in which the tuition fee of \$1.50 each student meets practically one-half the traveling expenses of the teachers. Single lectures, lectures in series, cooperative experiments, and the like, are usually conducted on this basis.

This policy automatically relieves the College of those requests that do not represent the solid backing and serious thought of the community in question. It also stimulates those who actually contribute to make the necessary arrangements in proper form so that each contributor may receive at least the full value of his contribution.

Of course, when the society, community or individual cannot really afford to pay half the traveling expenses, we judge the situation on its own merits and often pay all of the expenses until such time as the community may get itself on a working basis. We always reserve the right to aid backward or disadvantaged localities.

Now and then there is a feeling that the community is entitled to this service without direct expense because the individuals feel that they have paid for it in their taxes. This feeling is not marked, however, and is easily met by pointing out the very small amount of extension service that could ever come to any given rural community merely on the basis of the taxes paid. The communities cannot expect any very special aid on the basis of taxation alone; taxation supports the institution and maintains the staff; the institution is here, for such use as the people desire to make of it in an extension way.

We have arrived at standardized methods of college teaching, in the sciences, professions and arts. We are

beginning to standardize our regular college instruction in agriculture, as experience accumulates.

We shall also arrive at standard methods of extension work. We appear to be now in an epoch of exploitation, and the putting over of enterprises. I am afraid of many of the variegated schemes. The safety in the situation lies in the fact that the farmer

is more concerned in his plowing than in anybody's pet scheme.

Assuredly we need attention to government in rural communities, better economic opportunities, better social privileges, better institutions and organizations, and all that; but our problem is to let the educational processes work themselves out.

## THE FILIPINO FARMERS' PLEA FOR THE INDEPENDENCE OF THE PHILIPPINES

*By Manuel A. Gonzalez, 14*

EDITOR'S NOTE.—This speech won the second prize of \$25 at the Fourth Annual Eastman Stage in Public Speaking.

ON THE day of Dewey's memorable victory over the Spanish fleet in Manila Bay, the Philippine Islands fell into the guardianship of the United States. Since then, the question which has faced the people of this country has been "What shall we do with the Philippines?"

This question must not be left unanswered. The United States has had the Islands long enough to be able to decide it definitely. Are you going to follow the Spanish policy and keep saying "tomorrow, tomorrow," and leave the people making conjectures as to their future government? Ladies and Gentlemen, the demands of the people must be answered! Silence only creates uneasiness. Every year that slips by this silence makes conditions worse and confirms the Filipinos in the fear that independence will never be granted them. If independence is intended, why not say so at once?

It lies within your hands to solve this problem, and I shall attempt to show you that its solution depends upon giving the Filipinos their independence. To do this I shall divide the issue into two parts:

1. Should the United States permanently retain the Philippines?

2. Are the Filipinos now ready for independence?

The first part must be answered negatively, for the United States must not retain the Philippines. What would you profit by their retention? Americans and Filipinos would have constant misunderstandings. It is only a dream that leads one to believe that people differing so much could live together peacefully under the same roof. They could no more become united than the Philippine Islands could be connected by a strip of land to the United States. As the deep ocean separates these two countries, so do race, customs and temperaments separate the two peoples.

Nevertheless, let us suppose for a moment that these barriers did not exist. Still, the permanent retention of the Islands would not be possible except by a fundamental change in your constitution for your own government rests upon the principle of the consent of the governed. Like your forefathers, the Filipinos have shed their best blood for independence. For this cause they fought many years against Spain. Poorly armed, poorly clad and famished for two long years they heroically resisted the United



States, and peace was only accomplished under the general understanding that the United States being a free country would not deny freedom to the Islands. So the people laid down their arms but proposed to gain in peace what they had not won by war.

Fifteen years have elapsed since the tumult of war has been heard in the fields of the Philippines, but today, every Filipino heart throbs with no less love for independence than when with tears in his eyes but with a firm resolution he relinquished his beloved wife, children and parents to die for his country. If notwithstanding these conditions, the United States should retain the Philippines, then you will establish there a government against the will of the governed.

Moreover, you can not govern the Islands because you have enough problems of your own to solve. Your government is jeopardized by the trusts and these reach like the arms of an octopus even into the Philippines and mercilessly crush the Filipino farmers, the sustaining pillars of the country.

Your dealings with the Islands have served mostly to help swell the money bags of the trusts. In 1902, Congress, in spite of the vigorous protests of the Filipino farmers, established in the Philippines an export tax. It is true that when the United States took the Islands it was declared that the American constitution would not be enforced there, but certainly it was not mentioned that the government would promulgate laws which the constitution expressly prohibits! The export tax law is one of these, and yet it is enforced in the Philippines!

This was only the first step to a tremendous scheme whereby the Filipino farmer was to be made the victim of American Trusts. Later Congress passed another law with the supposed purpose of helping the Filipino farmer. The essence of this law was the abolition of the export tax from all of these products raised in the Philippines, exported and consumed in the United States. It sounded magnanimous, but in reality it was sugar-coated poison for the farmer.

Let us see how it worked out in a specific case, that of the hemp grower, Manila hemp being our principal export. If the farmer tries to export his hemp, although his bales are consigned to the United States of America, he has to pay the export tax as a deposit, till he proves by receipts that his hemp has reached the United States, and that the people of this country have consumed it. At a glance you will discover how ridiculous this is! A small exporter can not keep track of his goods till they are consumed. On the other hand, the principal exporter of hemp, the International Harvester Company, exports it to the United States, can prove that it is received and consumed in this country and, therefore, is able to reclaim its export tax. In eight years, the meagre treasury of the Philippines has had to return to the already repleted vaults of the trusts over four million dollars! More than one-fifth the amount paid by the United States for the whole of the Philippines! This special privilege given to the large American exporter makes competition by other foreigners impossible; thus the American trusts have the monopoly of the hemp of the Philippines and have been able to force down the prices to one-half what they were during the Spanish domination! They have the Filipino farmer by the throat and yet the government stands complacently indifferent!

The farmers might still be happy if it were not for further abuses. After having lowered the prices of their products so that they are practically compelled to plant something else in order to subsist, your trusts are stepping in and acquiring the land. Foreseeing this and trying to prevent it, the United States Congress passed a law limiting the amount of land that could be owned by a citizen or corporation, and only giving to foreigners, or non-citizens, the privilege of working the mines and cutting the timber, thus making it impossible for them to monopolize the land. What did the American Government in the Philippines do? They interpreted the law

so that they have been able to sell or contract to sell to large American corporations one hundred and fifty-five thousand acres of the "friar estates." Land which was bought from the religious orders with the sole purpose of selling it back to the people in small lots! The government is merely thrusting a new master upon the people!

Worst of all, has been the violation, by the government officials beginning with the governor and ending with the most insignificant government employee, of the well-known principle of law whereby a person occupying a trust relation can not deal in the property of which he is a trustee. One case is that of an official who made up his mind to acquire a large estate near Manila upon which there were over two thousand tenants, in such a form that their labor pays for it and at the end of twenty years he will find himself the absolute owner of the property without having disbursed a single cent.

Furthermore, your national honor is involved in this problem. The nations are watching with eager eyes your policy in the Philippines. Retain them, and the European nations will lose their faith in you. Your prestige with the South American Republics will fall to pieces. They will look upon the United States as an Ogre ready to pounce upon them at any time, and they will consider the Monroe Doctrine a fake to help you to accomplish your own selfish ends.

Since we see that it is wiser for the United States not to retain the Islands:

1. Because of the incompatibility of Americans and Filipinos;
2. Because their retention would be unconstitutional;
3. Because of the impossibility of governing them rightly; and
4. Because your national honor would be blotched should you retain them, therefore the only way remaining in dealing with them is to give them their independence.

The Filipinos are as fit for self-government as many European, Asiatic and American nations. Our literacy is forty-five per cent. as against fifteen

per cent. in Brazil, twenty-seven per cent. in Portugal, forty-two per cent. in Cuba and forty-five per cent. in Argentine. In addition to the education, the Filipinos are not only united by a common religion, Christianity, and by blood, but their struggles against a common enemy has made of them a nation with one ideal, "independence." Moreover, the people have the ballot, elect their own mayors, provincial governors and many other important officials. The good use made by the people of the power to vote, together with the prudence and judgment displayed by the officials elected by them, prove conclusively that the time has arrived when the reins of the government should be turned entirely into their own hands. Then the United States will have accomplished a great deed and made eight million people happy!

The Philippines will be able to maintain their independence by remaining neutral. They are situated in the heart of the Orient in the same way that Switzerland is situated in the heart of Europe, and for the same reasons that Switzerland has been neutral, the Philippines could be made a neutral nation, thus obviating entirely the danger of a foreign invasion.

In the Islands, the wail that fills the air is "When will Congress settle the uncertainty in which we live?" This question will soon have to be answered, and its answer depends upon you, the people. Do not be indifferent. I entreat you not to forget the gallant Filipinos, who like your heroic forefathers, sacrificed their lives to free their country; the pining Filipino farmers who extend their arms to you that you may liberate them from the relentless clutch of the trusts. Let not ambition and greed harden your hearts. Remember the noble words of the late President McKinley: "The Philippines for the Filipinos," and as you are free and independent, so let the Filipinos be and thus make the United States the Protecting Angel of every weak nation; and the stars and stripes the Symbol of Liberty loved by all the world!

# LESSONS THE EASTERN FRUIT GROWERS CAN LEARN FROM THE WESTERN ORCHARDIST

*By C. C. Vincent*

Associate Professor of Horticulture, University of Idaho

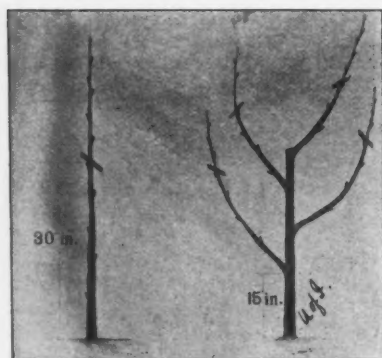
A FARM paper that came to my desk recently had this inscription as a motto: "Better Farming, Better Business, Better Living." That is a good guide to follow, for we find that experiment station men, government experts and practical farmers are continually experimenting and planning how to "make two blades of grass grow where one grew before." If we wish to improve our methods of farming, we must from necessity experiment for ourselves or learn from the experience of others. Many of the most difficult problems that confront the eastern fruit grower today might be worked out by a study of the experiences of the orchardists in the Pacific Northwest, for never in the history of the country has so much interest, so much intelligent thought been given to land, to the soil, to the possibilities that may be realized in its improvement as at the present. Hardly half a century has elapsed since the pioneers laid the foundation of the Empire of the West, and yet progress is noted on every hand.

A few years ago the fruit industry was just in its infancy. From a small acreage at that time, the industry has reached such a magnitude that today in the state of Idaho alone over 142,000 acres are planted to orchards. This phenomenal growth, however, during the past few years, has not alone been due to improved business methods of packing and marketing. Nor has it been due to the cool nights, the warm days, and the amount and intensity of the sunshine. Other factors have been instrumental in prompting this rapid advancement. Success has largely rewarded the growers because (1) they have exercised care in selecting varieties best adapted to their localities; (2) they have paid particular attention to the types of soil best adapted to certain varieties; (3) they

used judgment when selecting the proper location as regards site, slope, irrigation, transportation, etc., and (4) they were careful in planting. In reality the successful orchardist exercises care from the start. When it comes to planting a commercial orchard, the prospective grower should "make haste slowly," for the fruit industry is becoming more and more a specialized business and as such requires specific treatment. Mistakes made in fruit-growing are generally irreparable. A discussion then of the common methods and practices followed by the successful orchardists of the Pacific Northwest will no doubt be of practical value to the eastern fruit grower.

## THE LOCATION

All of our successful growers have agreed that a proper selection of a site is quite essential to successful orcharding. Faulty selections have been made from time to time by the speculator, and the result has been failure. Site has reference to the exact location; hence, when choice is permitted, the orchard should be on a more elevated spot than the surrounding country. A selection of this kind insures good air drainage, as well as good soil drainage. From experience the orchardists have found a northern or eastern slope to be more suitable for the apple orchard. These slopes are preferable for the following reasons: (1) the soils do not become warm until late in the spring and this retards the blooming period; (2) a better protection from the prevailing winds can be had; (3) the soils are usually deeper and richer. Generally speaking, the dark loamy soils with deep and porous subsoils, are best adapted to the growing of the apple. As the character of the soil influences, to a certain extent, the character and quantity of the product, the grower should keep in



One year old, properly pruned

Same tree two years old

mind this fact when locating the fruit plantation. He should select a soil suitable to the variety or varieties he wishes to grow. Then again, orchards located on slopes within close proximity to large bodies of water or rivers, are less liable to injury from radical climatical changes than more distant slopes. Lakes, large rivers, etc., exercise an ameliorating influence by retarding the development of vegetation in the spring and extending the season in the fall. With such a location immunity from late spring frosts is practically insured.

#### SELECTION OF VARIETIES

One of the first problems confronting the prospective grower is the selection of the proper varieties for commercial planting. Several factors, such as soil, climate, etc., must be taken into consideration when making the choice. A variety that does well in one section probably will not do equally well in another. The grower should select the variety or varieties that flourish in his locality and confine his attentions to them. Nothing is gained by lamenting over the fact that a certain variety cannot be grown that is bringing such handsome returns in another section. The apples that find the readiest sales in the markets are those that are fairly large and highly colored. The American people prefer a highly colored apple. Many of the yellow sorts are selling remarkably well. This

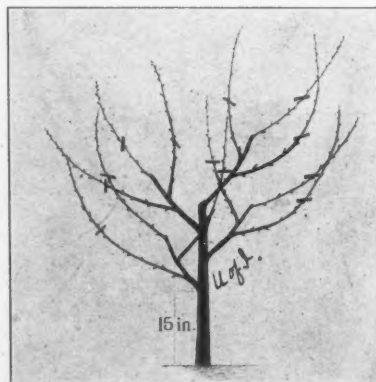
is especially so in the English markets. The grower should endeavor to supply the market with the best varieties he can grow under his conditions and success will crown his efforts.

#### SELECTION OF TREES

In starting the commercial orchard, the proper selection of trees is an important factor. The grower should insist upon having nothing but first-class trees, no matter if the initial cost is a little greater than those of a lower grade. It is very seldom economy to buy cheap, low-grade trees. The best is none too good. The following points constitute a first-class tree:

1. A well grown, medium sized specimen.
2. A tree having characteristics of the variety.
3. A tree that is healthy and free from injurious diseases and insects.

If the grower is not familiar with the characteristics of the variety he wishes to purchase, it will be well to deal thru a reliable, well-established firm in his locality. It is generally safe to rely upon the nurseryman's judgment, in sending first-class material, for his business reputation rests upon the service rendered. The age of the tree to plant is another very important factor in successful orcharding here in the Pacific Northwest. Experience has proved that the one-year old tree is best adapted to our conditions.



TYPICAL THREE-YEAR-OLD TREE





ROME BEAUTY AND JONATHAN ORCHARD.

Successful growers prefer the one-year old trees for the following reasons:

1. Young trees make a more vigorous growth than older ones.
2. In removing from the nursery less of the root system is destroyed.
3. With the root and stem system intact, the transplanted tree does not receive such a severe shock.
4. The head can be formed at any height to suit the convenience of the grower.
5. A better yield is obtained.

#### PREPARATION AND PLANTING

The ground should be put in the best possible tilth before it receives the trees. Many of the growers prefer to prepare their ground in the fall. The reasons for fall plowing are: (1) the ground catches and holds the snow and rain of winter; (2) the soil is exposed to the ameliorating effects of frosts, and (3) the sub-soil becomes more firmly settled. When plowed in the fall the ground is in much better shape for the spring planting. While both fall and spring planting are practised, the spring planting, however, seems to have the preference, as in many sections the falls and winters are rather dry. Such conditions are usually detrimental to fall-set trees. By heeling-in the trees in the fall, the roots become thoroughly calloused and on transplanting in the spring respond with an excellent growth. The square system of planting is followed more generally, as it constitutes the simplest method of

arrangement, and is very satisfactory from the point of convenience of cultivation and general appearance. The usual distance of planting is thirty feet. This gives the tree ample room for their fullest development. The treatment at the time of planting has a marked influence upon the future welfare of the tree. The roots should be very carefully pruned by removing all bruised, mutilated pieces and interlacing roots. A treatment of this kind insures a more perfect development of the tree. In order to establish an equilibrium between tops and roots, a portion of the top should be removed. Since low-headed trees are preferred, the necessary pruning of one-year-old trees is sufficient to reduce the top. Large, convenient holes, large enough to accommodate all the roots and deep enough so that the tree can be set about three inches deeper than it was in the nursery, should be dug. Shallow planting should not be tolerated. By planting fairly deep, a better root system is developed and the tree becomes more firmly set in the ground. Many trees, however, are lost annually by too deep planting. When removing the dirt from the hole, the usual practice is to place the surface soil by itself in a pile. This soil is reserved and placed around the roots of the tree, as it is rich in plant foods. The soil in the bottom of the hole should be finely pulverized. By means of a tree locator, the tree can be placed in its exact position in the hole. The roots should

now be spread out in all directions and the surface soil placed firmly around them. By moving the tree slightly up and down, the soil may be worked under the roots. When the hole is about half full, the soil should be tramped down firmly. After filling, a few shovelfuls of soil are thrown around each tree to prevent excessive evaporation and the operation is complete.

#### TRAINING THE YOUNG TREES

As soon after planting as possible, the tops should be removed. This operation encourages wood growth, and the grower should endeavor to maintain a good thrifty wood growth thruout the season, as the first year is the most vital period in the development of the orchard. The top should be removed to within thirty inches of the ground. If the first branch is allowed to come out fifteen inches from the ground, this allows fifteen inches for the distribution of the other branches, and thus no bad crotches are formed. From three to five scaffold limbs are all that are needed to form a well-developed tree. In windy sections, an extra limb is allowed to develop on the windward side to serve as a weight. During the summer all of the upper limbs are allowed to develop. If some of the top ones are making a too rapid growth, they are pinched back, so that all will have an equal show for development. A few of the buds at the base of the tree are allowed

to develop slowly so that the leaves will protect the trunk the first summer from sun-scald. Most growers in the Pacific Northwest are striving to produce a strong, stocky, symmetrical open-topped tree during the first three or four years. Hence, the pruning should be carefully and systematically done during this period. At the close of the first year, or during the second year, the grower should go thru his orchard and select his scaffold limbs, removing all others. The remaining limbs are then shortened back from one-third to one-half. This makes them grow strong and stocky. During the second year, laterals will begin to develop. The training the third year will consist in shortening back these laterals, removing all crossing and broken limbs, and cutting off from one-third to one-half of the current year's growth. From two to three side laterals on each main branch are allowed to develop, and all others removed. The future prunings should be of such a nature that by removing all crossing and broken limbs, the top will still retain its symmetrical form, thus permitting full circulation of air and sunlight.

The key-note of success with the fruit grower in the Pacific Northwest is thoroughness as to details, and there is no reason why the eastern grower cannot gain as much prominence if he will enter the business with the determination to succeed.



VIEW OF CORNELL POULTRY FARM.



## MASTERY IN BUSINESS

Delivered at the New York State College of Agriculture, March 20, 1913

By M. G. Kains

Associate Editor of the *American Agriculturist*

ONE of the chief secrets of happiness is to look upon all work as an opportunity to develop character. From this point of view no labor, however distasteful, can be a task. It must be done, of course; but to make light of it is easy when you reflect that it will help to develop your genuine worth. To dread it will not only make it a task—drudgery—but will undermine your character as surely as a stream erodes its channel. Perhaps you cannot always choose for yourself how you will learn but it is within your power to improve your opportunities and to come out more than conqueror in every experience.

Boys, accept responsibility, for in that direction lies mastery. If you do not take away any other thought than this from my talk today, take this one: *Accept responsibility.*

When at home on the farm one of my friends began accepting responsibilities all the time training himself to do each task a little better than the previous one. He worked his way through an agricultural college and was given a position as farm foreman. Here his practical knowledge, acquired mainly by self training made him conspicuously successful and he was soon invited to go to another institution at a better salary and with wider responsibility. Success again came his way. He made his department the leading one of the college. Another college wanted him and he went with a similar result. He next became director of an experiment station and finally editor of one of the leading farm papers of the world. Always his advances brought with them greater and greater responsibility and broader culture. Indeed, he is one of the broadest-minded men of the agricultural world.

Some fellows are like the young man who said that all he wanted was a start, but of whom the *American*

*Lumberman* said that what he needed was a self-starter. Boys, "Start something—back of the bread of the nation is the porous little yeast cake." If you have the "yeast" you will do it all right; for men who accomplish things neither need a "pull" nor a boost. They wait for no one but get busy themselves.

In some establishments, employees are encouraged by prizes to offer suggestions for the good of the business, but such opportunities exist in every business. Make the most of them, prize or no prize. If you do, you will never have time to be envying the opportunities that another fellow embraces. Improving what comes your way will keep you busy and happy. If you never see an opportunity going begging, but notice it only after some other fellow has improved it, you will thus place yourself upon the undesirable list and will sooner or later be entitled to an indefinite leave of absence.

Don't think that a man is big because he gets a large salary. On the contrary he gets a large salary because he is big; and he grows big in small positions. The surest way to merit promotion is to make yourself conspicuously effective in a lowly position. Remember, it is invariably more difficult to find men of ability to fill positions than to find positions for men of ability. The world is constantly groping for men to shoulder its burdens. If for no other reason than selfishness, it would seize every likely man and give him a chance to prove his worth.

Never be dazzled or dismayed by genius. Great geniuses overshadow us by their greatness. We are apt to be unnerved by the splendor of their achievements, to become discouraged by the thought of our own littleness in comparison, to hesitate and to halt in doing our own work or attempting to

do the work nearest at hand that is ours to do. This is fatal to our success. We wrong no one so much as we wrong ourselves, for by such action we borrow from our own futures and fling our talents to the winds.

Not one of the great geniuses of the world ever thought of himself as a genius. He did what he saw was his work in the best way he knew and when one task was done he leaped to the next with the same energy that characterized his earlier attempts. This is the way that everyone may achieve—shall I say fame? No, satisfaction; for unless a man takes joy in his work he cannot experience the mental approval that is above and beyond any and all acknowledgment from the outside world. Before he can become great in the eyes of the world, every man must become great to himself, not through hallucination, but because of his actual achievements. To seek greatness on any other basis is to blast all hopes of it.

Longfellow is right when he says, "The talent of success is nothing more than doing what you can do well; and doing well whatever you do—without a thought of fame." The man who itches for fame will never be satisfied with what he wins or what he has. He will forever be wanting to scratch something just beyond his reach.

There is more honor in triumphant mediocrity than in any achievement of genius; for the man of small ability has thus made the most of himself, whereas the genius has merely omitted what was natural and easy for him.

This leads me to say that the basis of mastery in business, as in everything else, lies in correct thinking coupled with hard work. You cannot justly estimate your ability or your capacity, nor can you tell whether you are capable of only small things or of great achievements, until you have made actual tests; but every one of you can learn to think correctly and to demonstrate your thinking in deeds. It is not your affair whether you are a genius or not, but it is your business to think correctly and to do your work

well. If you have great talents, industry will improve them; if you have but moderate ability, industry will supply the deficiency. Indeed, the more limited your powers, the greater the need for effort; and the smaller the result of your efforts, the greater the need for increased effort.

"A little more persistence, courage, vim! \*  
Success will dawn o'er fortune's cloudy rim.  
Then take this honey for the bitterest cup;  
There is no failure save in giving up,  
No real fall as long as one still tries,  
For seeming setbacks make the strong man wise.  
There's no defeat, in truth, save from within;  
Unless you're beaten there, you're bound to win."

This matter of persistence is one that stirs me very deeply because I know that through apparently no fault of your own some of you may possibly not be able at the start to secure the kind of work you would like, or that later you may possibly be thrown out of work, may perhaps have to walk the streets, may even be forced to depend for a time upon the kindness of others for the necessities of life. Never give up. Always be ready to break out in a fresh place. Lack of funds and lack of work are sometimes an inestimably valuable asset. They develop the best qualities of manhood. They dig the priceless treasure of resourcefulness. But this great blessing of lack is seldom seen as such until after it has done its work.

From this don't suppose that I advocate poverty. Not at all! I wish only to declare that money is too often a handicap. It makes a man indolent, intolerant, insolent, unsympathetic. On the other hand, too great a lack is apt to lead to miserliness. Would you have money? Then forget it in your work. There is no true success where money is the object. To aim at it is usually to miss it; but to give an equivalent in service, in goods, in anything is to gain a double satisfaction; first, and most important in the joy of having done good work, and second, in having received value for value given. Whoever devotes thought, time and energy to good work

is entitled to his just compensation and he alone can enjoy the fruits of his labor in the truest sense. He alone can know how to expend his surplus to best advantage, not upon himself but in the service of others. The sooner a man discovers and applies this knowledge, the happier for him and the better for the human race.

The greatest fortune each of you can possess is to know that there is something in you of use to yourself and to other people. When you know this you will begin to express yourself; that is, to press yourself out; in other words to press the power in yourself out into the open for others to see and to utilize. Some of you will learn this fact intuitively. Others must have hard experience, in order to bring it to fruition. In the midst of your trials, remember Josh Billings' wholesome thought, "As in a game of cards, so in the game of life, we must play what is dealt to us, and the glory consists, not so much in winning as in playing a poor hand well."

Many, many of the world's greatest men have had to go through this kind of experience and it is no dishonor; rather it is a credit, a great credit to them because it has revealed the true metal of their genuine manhood. So if you are forced to follow in their footsteps, remember that the world will take your measure and judge you by yourself, by your own standard. It is not interested in your ancestry, but in you. No matter how humble or how exalted your father's station in life, no matter whether your mother may have achieved fame or been an obscure drudge, no matter if you have no tangible property except the clothes you stand in, you can gain your own footing and take your own place in the world upon the basis of what you are.

And what you are depends wholly upon the way you think. Never give way to a discouraging thought, a pessimistic attitude, a hopeless outlook upon your prospects in life. "Self pity, harsh judgment of others, envy, jealousy, doubt, mental indolence, weak longings for more than you have

won by strong endeavor, all these things prevent more men from becoming successful than all the unjust conditions which exist in our industrial system. Waste of thought is the most common waste which exists, and there is no extravagance so far-reaching and so vast in its devastations." These thoughts are all negative; they are destructive. Banish them. What you need at all times is the attitude of correct, positive thinking.

One of the fundamentals of correct thinking is to become thoroughly imbued with the conviction that you have your own work in the world and that no one can do it for you. This is an inspiring thought. It will make you feel as you really are, unique. It is progressive, hopeful, positive, stimulating. No matter what your work at the present moment, do it with this thought and you must grow in strength of character, in capacity, and you will surely be rewarded according to your deserving. If you have prepared yourself thoroughly along some line that really interests you and can be made of service to your fellow men, you will find your next higher place open and ready for you as soon as your preparation is complete. You can thus prove that all things work together for good to you because you love your work.

Boys, mark my words: Let a man but dedicate his thoughts and his deeds to the service of others and his day must come. He can no more escape his reward than the sun can fail to arise. True, he may meet discouragement, disappointment, delay, betrayal; but let him maintain his steadfast purpose and his genuineness shall triumph and he shall reap where he has not been conscious of having sown, and he shall have honor—even in his own country. You must each of you have faith, more faith in yourself. You must realize that the whole matter of success lies in yourself. You can succeed in spite of everything and everybody if you come fully into the consciousness of your personal responsibility and your unlimited powers.

# The Cornell Countryman

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MAY, 1913

## The New Board

"Today is not yesterday: we ourselves change; how can our works and thoughts, if they are always to be the fittest, continue always the same? Change, indeed, is painful; yet ever needful."  
—Carlyle.

Again the time has come for the old COUNTRYMAN board to retire and leave to the new board the active direction of COUNTRYMAN for another year and while we regret that we must sever intimate connection with the publication with so many plans undeveloped, and after so many opportunities lost, yet we are pleased to leave the responsibility of the COUNTRYMAN with a board so able and deserving. They will have their perplexities and their triumphs, their difficulties and their achievements, their work and their pleasure.

We feel that the COUNTRYMAN at the close of its tenth year is as is the College of Agriculture, in the formative period of development. With the

increase in the size of the College, and the attendant difficulty in getting the students together it is bound to become more and more useful in reflecting the ideas and sentiments of the student body. With the increasing number of alumni it will become more and more a potent bond between former student and alma mater.

The COUNTRYMAN board as elected for 1913-1914 is as follows: Editor-in-chief, Frank W. Lathrop, Grad.; Alumni notes editor, Dudley Alleman, '14; associate editors, Edward D. Vosbury, '14, Edwin C. Heinsohn, '15, Harold M. Stanley, '15, Alexander E. Montague, '15, Birge W. Kinne, '16, Stewart Wilson, '16; business manager, J. Judson Swift, '14; assistant managers, Robert W. White, '15, Lawrence A. Wood, '15, Paul C. Cutter, '16.

We wish at this time to express our sincere thanks to the following men for work done during the past year: A. B. Dann, '15, E. F. Johnson, '16, and H. M. Kowalsky, '16.

At this time, the 1912-1913 board wishes to express its gratitude to those who have made the COUNTRYMAN possible. We thank especially our contributors, advertisers, and subscribers, as well as those who have offered us suggestions and well-meant criticism.

May the CORNELL COUNTRYMAN prosper and continue to fearlessly serve the student body of the New York State College of Agriculture.

## The Agricultural Association

A new era in the affairs of the Agricultural Association was begun Friday evening, April 18th when the first meeting of the new Executive Committee was held. This executive



committee which is a representative committee of the whole student body will hereafter carry on all routine business and thus save much time and unnecessary discussion.

The nature of the Association meetings will also be changed. Prominent men in the agricultural and educational world will be brought here and instead of the old business sessions interesting only to a few, an interesting program will be given.

The Association is taking up several important problems for the betterment of the college. The officers have the welfare of the Association at heart and are trying to make it a live factor in the college. But the best results cannot be accomplished without the coöperation and hearty support of every student. Let's everyone lend a hand.

#### The Honor System

As far as honor systems are concerned, student bodies may be divided into three classes: (1) those who need none; (2) those with whom it will work if applied correctly; (3) those with whom the honor system does not work. Unsympathetic outsiders have recently placed the students of the College of Agriculture in the third class.

We believe that the honor system will succeed in the College of Agriculture if correctly applied. The reason for its present inefficiency is the laxness with which the student looks upon the man who "cribs." Let us stop and think just what the man who "cribs" is doing. He is doing things in secret

which he dares not do in the open. He impairs his intellectual powers by doing the task at hand not even half well. But worse than this he tends to pull the standard of scholarship in the College of Agriculture down to his own chosen standard and thus decreases the value of a Cornell degree.

The remedy lies with every student in the college. It is not right that we should look upon such a man as one who is playing a joke on the faculty. Do not delegate your responsibility to honor system committees. They can accomplish little without your active support. Let us build up a public sentiment which will not tolerate such a dangerous individual.

#### The Student Loan Fund

There is a movement on foot in the College of Agriculture to raise a student loan fund.

The time of the year is unfortunate since there are so many expenses piling up to compete with its collection. But the movement is deserving of more consideration than any which has occurred at the college in recent years. It is, an unselfish effort, to do something for somebody else.

Ultimately the fund will reach \$10,000.00 and will supply a great need. And the College of Agriculture needs the kind of men this fund will encourage, men who will undergo sacrifices to get an education. This fund is in thorough accord with the principles underlying the founding of Cornell University.

We extend our sympathy to Professor Savage in the death of his wife.





## CAMPUS NOTES

The April Assembly, held April 17, was one of the most enjoyable of the year. Following the "Alma Mater" the Glee Club rendered a song. In continuance of the practice of singing Old Folk Songs, introduced at the last Assembly, the audience sang "Dixie Land" and "Old Folks at Home." Next they had the pleasure of hearing some well-played selections by the Mandolin Club.

In the first part of his speech, Dean Bailey told of some of the activities to be carried on next summer. The mains from the new heating plant are to be laid across the quadrangle north of the Main Building, and then the ground will be levelled and seeded. After removing the old Poultry buildings, work on the new Agronomy building will be started. This building will be situated just east of the Home Economics building. Eventually, but not in the near future, a new front will be put on the north side of the Main Building, facing the quadrangle.

Another point of interest is that a real auditorium will be built in the woods replacing the old one, thus furnishing an ideal place for summer lectures.

The Dean changing his subject, now turned his attention to the satisfactions to be gained by a farmer. He has the opportunity of working hard and reaping the rewards of good work; a good appetite results and he can really enjoy his meals. He also has the satisfaction of getting very tired physically and sleeping soundly, he can love and own

all kinds of animals, horses especially; he can have a near creative power, that is, of making fields very productive; he can run machinery and do many other things, himself. The farmer has the further advantage of having only a few books which he may read well, and not possessing a great many half-read volumes. Lastly he has the great opportunity of knowing some folks well. He should cultivate neighborliness and be a good neighbor himself.

After the evening song the usual social hour was enjoyed.

A vegetable gardening train was run over the New York Central Lines, March 31 to April 5th. Although farm trains have been run by different railroads in various states, this is the first train ever sent out for the marketing interests alone. It consisted of two cars, one consisting of an exhibit of vegetables, greenhouse material and models, seeds, model hotbed, potted plants, implements, cultivators, seed drills, charts, photographs, publications, etc. The train was in charge of F. S. Welch, agricultural representative of the railroads and Professor A. C. Beal of the Department of Horticulture. Stops were made at Newburg, Kingston, Catskill, Coxsackie, Albany, Schenectady and Troy. The stops were usually for one day. Lectures were given on greenhouse construction, planting home grounds and school gardens, by Professor Beal; on growing early plants, on planting and

transplanting vegetables, planning gardens and home gardens by A. E. Wilkinson; on intensive vegetable growing, irrigation, harvesting, marketing and packing, market gardening and grower's organization by Paul Work. There was a large attendance and great interest was manifested in the exhibits and in the discussions.

The Cafeteria in the Home Economics Building opened Thursday, April 10, prepared to serve four hundred dinners at one time. It is the only eating place run by the University and one of the only two places where meals may be obtained on the Campus.

The big dining room is 75 feet long and 55 wide, airy and well-lighted and decorated after the manner of banquet halls. The serving counter extends the whole width of the room.

Everything of the best has been the principle, guiding the Home Economics Department in fitting out the place, and the best will be provided at all times. A staff of expert chefs have charge of the food. All of the latest appliances are used in the kitchen—mechanical cake mixer, carbonic anhydride process of ice-making, portable oven, electrical dough-divider, and proofing oven.

\* \* \*

This spring the College is beginning to plant trees and shrubbery wherever such planting can be permanent. A row of tulip trees is to be planted along the Tower road from the Veterinary College to the Poultry Plant and perhaps further. Plantings are to be made around the head houses and main buildings which will be permanent. It is also hoped that the main drives entering upon the college grounds will be developed into better and more attractive highways in the near future.

It is the idea to begin a real botanical garden collection which, having such a large area to cover, will contain many kinds of trees, shrubs and herbaceous plants which will be hardy here.

Already we have a rather large nursery on the Bool Farm and much

material which is ready for the student to plant.

The planting end will be one of the real developments in the next year or two.

\* \* \*

The Junior class of the College of Agriculture held their last meeting in the Home Economics building on Friday, March 21. A program of talks, stunts, instrumental and quartet numbers was given and the entertainment was a great success. The stuntsters were: R. T. Kidde, '13; M. J. Barrios, '14; B. W. Hendrickson, '14; and E. G. Fleming, '15. Professor A. R. Mann, '04, was the speaker of the evening.

\* \* \*

The sophomores in the College met on Tuesday evening, March 18, in the Home Economics building and had a regular get-together party. A talk by Dr. Gilbert, stunts, musical numbers and dancing all helped to make the evening an enjoyable one.

\* \* \*

The second annual meeting of the New York State Forestry Association will be held in Ithaca in the winter of 1914 to take part in the dedication of the new Forestry Building.

\* \* \*

Professor Wing has entirely rewritten his book "Milk and Its Products." In its old form the book went through thirteen editions. The new work is reset throughout and contains 125 extra pages with new illustrations.

\* \* \*

In the Rural Textbook Series, edited by Dean Bailey, are announced "Farm Management," by Professor G. F. Warren; "Corn Crops," by Professor E. G. Montgomery, and "Animal Husbandry," by Assistant Professor Merritt W. Harper.

\* \* \*

Mr. Henry Hicks '92 has presented the collage with a carload of trees and shrubs.

## FORMER STUDENTS



WM. PITKIN  
Rochester, N. Y.

'07 Sp.—William Pitkin, Jr., was born in Rochester June 3, 1884. After completing work in the public schools at 14, he spent two years in Bradstreet's Preparatory School for Boys at Rochester. Mr. Pitkin then spent a year in the Rochester Business Institute and a year with his father's business house—Chase Brothers, nurserymen of Rochester. With this excellent preparation Mr. Pitkin came to Cornell and took two years of work in Landscape Architecture followed by a year with Townsend and Fleming, Landscape Architects of Buffalo. For three years after this he was partner in the firm of Pitkin and Weinrichter doing landscape work at Rochester. Mr. Weinrichter withdrew from the firm after this time and the business is now carried on by Mr. Pitkin alone with success and very favorable prospects for future business.

'91, Sp.—William J. Kerr has been appointed president of Oregon State Agricultural College at Corvallis, Ore-

gon. He was formerly president of Brigham Young College at Salt Lake City, Utah, and of the Utah Agricultural College.

'01 M.S.A.—William Macdonald is the editor of the *Agricultural Journal* of the Union of South Africa. He recommends strongly the College of Agriculture as a model for the proposed national college of agriculture for South Africa.

'02, M.S.—C. K. McClelland writes that he celebrated Founders' Day in Honolulu with C. J. Hunn, '08, and J. E. Higgins, '98. All of these three former students are now connected with the College of Hawaii at Honolulu.

'05, B.S.A.;—'06, M.S.—J. M. Swain is now assistant Entomologist of the Department of Agriculture of the Dominion of Canada, dealing with forest insects particularly. After an extended trip thru British Columbia and Northern Canada in study of these insects, Mr. Swain will return to Cornell to complete his residence for the degree of Ph.D.

'06, W.D.—Ellis M. Santee has been chosen Director of Agriculture at the Good Will Home Association—a school for boys at Hinckley, Maine. He recently visited the college.

'08, B.S.A.—Andrew W. McKay, who is doing field investigational work in Pomology for the U. S. Department of Agriculture was in town on April 3d.

'10, B.S.A.—Louis F. Boyle is consulting agriculturist of the Inter-Mountain Industrial Association. His office in the Vermont Building, Salt Lake City, Utah.

'10, Sp.—R. V. Callan is assistant manager of the St. Croix Farms at Johnsonville, N. Y.

'10 B.S.—H. N. Kutschbach is now managing an 800 acre farm at Sherburne, N. Y.

'10 B.S.—J. H. Rutherford is now in the employ of the Paine Investment Company of Geneva, N. Y. His company is buying up many tracts of fine farm land thruout western New York and advertising them for sale particu-

larly in the West. Mr. Rutherford is manager in charge of operations and improvements on the company's holding.

'10, B.S.—G. B. Scoville is in charge of the Chemung County Farm Bureau with offices at Elmira, N. Y. He recently gave a very interesting address before the Farm Management Seminar. Mr. Scoville described in detail the methods of carrying out the work of the county farm expert as he has conducted them in his district.

'11, Sp.—S. R. Heffron who has been testing milk for Prof. Wing during the past winter, visited Ithaca on April 3. On April 15 Mr. Heffron will begin work at New London, Ohio, as agent of the United States Department of Agriculture in forage crop investigations. He will be associated with a former student, Morgan W. Evans.

'11, B.S.—W. P. Strong is manager

of the large "King's Mill Farm" at Grove, Virginia.

'12, B.S.—H. B. Knapp was married on April 3 to Miss Gertrude Newkirk of Port Byron, N. Y. Mr. Knapp is an instructor in the Department of Pomology and is working for a Master's Degree.

'12, Ph.D.—J. Turlington is now principal of the Agricultural High School of Varreboro, N. Carolina. This is the first agricultural high school in the state.

'13, B.S.—Mr. B. C. Georgia is now instructor in charge of vegetable work at the Massachusetts Agricultural College at Amherst, Mass.

'13—R. W. Jones is in the Farm Management Department at Washington, D. C.

Ex '13—Mr. T. J. McElroy has accepted a position as agricultural expert with the Louisville and Nashville R. R.

## BOOK REVIEWS

THE COUNTRY LIFE MOVEMENT IN THE UNITED STATES. By L. H. Bailey. Rural. Outlook Set. Published by the Macmillan Company, 66 Fifth Ave., New York. 220 pages. Price \$1.50 net.

This book outlines the differences between the urban and the rural civilization, the problems of the rural civilization such as labor, middlemen, fairs, reclamation, the woman's contribution to country life and conservation. It cannot fail to fascinate anyone who is interested in rural progress.

THE YOUNG FARMER AND WHAT HE SHOULD KNOW. By T. F. Hunt. Published by The Orange Judd Co. Price \$1.50.

A book worth reading and containing some every-day facts that every

farmer should know. It is written especially for the young man who intends to take up farming giving both practical and theoretical points of view.

SHEEP-FARMING IN NORTH AMERICA.

By the late John A. Craig, Professor of Animal Husbandry at the University of Wisconsin. Published by the Macmillan Company, New York City. 300 pages; price \$1.50 net.

A timely book dealing with modern developments in the sheep-raising industry. Unlike most former books which have considered this subject mainly from the view-point of wool production, this volume emphasizes the raising of sheep for mutton.

## GENERAL AGRICULTURAL NEWS

Commissioner Calvin J. Huson is planning to make more effective than ever before, the work of the Bureau of Agricultural Labor in his department. Through the agency of the department some 5,000 people were sent out to work upon farms in the state last year. Commissioner Huson expects that the demand for farm labor for the year 1913 will exceed that of last year and therefore all persons in need of help are advised to file their applications as early as possible. Commissioner Huson may be addressed by those desiring farm help either at Albany, N. Y., or at the branch office which the department maintains at 627 White Building, Buffalo, N. Y. Full information and application blanks explaining how to secure the assistance of the labor bureaus of the department will be promptly furnished.

### APPLE GROWING CONTESTS

The Ohio State Board of Agriculture is arranging for Boys' Apple Growing Contests. The prize to the winner will be a free trip to Washington. An effort will be made to get sufficient funds to send one boy from each county. It requires only ten trees and is limited to farm orchards. The trip will be made on the Buckeye Corn Boy's Special trains.

### FEDERAL REGULATION OF MARKETS

The following is an excerpt from the address of Hon. E. W. Kirkpatrick at the First National Conference on Marketing and Farm Credits at Chicago, April 8. The producers part of the consumer's dollar has been too small. The main reason of failure of individual or concerted plans of organization to regulate prices, is inefficient supervision, the absence of power or authority to enforce rules or regulations. A federal bureau of markets, with local supervision, regulation and control of grading, packing and valuing according to established standards of supply and demand, is an inevitable necessity.

### AGRICULTURAL PRESS RECEIVES A BOOST

The Bureau of Plant Industry has published the results of a national survey to discover the relative value of various helpful farm agencies. Of 3,698 farmers visited, 6.3% placed the agricultural bulletins first, 3.6% placed the farmers institute first, 40.3% *favored the farm papers*, 4.5% regarded all agencies as equally valuable, 43.7% stated that none was helpful. Many of the farmers claimed that the papers contain all the essential information contained in bulletins or heard at the institutes. The conclusions are that agricultural research institutions of the country should make systematic use of the agricultural press as one of the most efficient means of reaching the farmer.

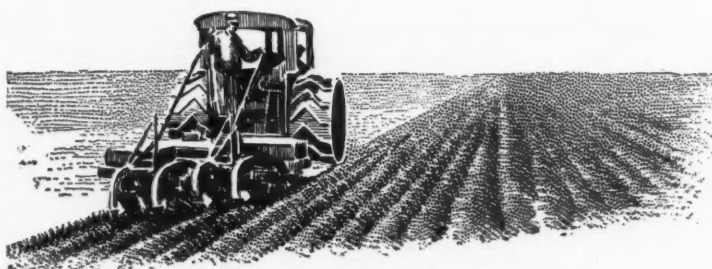
Eight students recently graduated from the Practical School of Agriculture at the University of Idaho. This is the first class to receive this honor as the school is but three years old.

Most of the boys went back to the farm by preference. Dr. Carlyle had difficulty in persuading a member of the class to take a position at seventy-five dollars a month with board. Graduates of this school are in great demand. The people of Idaho evidently realize the value of practical experience.

### AGRICULTURAL EXPERTS

The Connecticut State Agricultural Society is being commended for its policy of securing expert advice for Connecticut farmers. Mr. H. O. Daniels a very successful farmer and dairyman, has been engaged by the year and there will be no charge for his services. He will not volunteer advice but when asked for advice he will give it out of years of sound experience. There is no attempt to dictate to the farmers but an effort to give them farm advice which will rank with the advice of a good lawyer in a legal difficulty.





## Handy Farm Helps

The right way to do things is the one that makes all the working days of the year easier.

The little jobs are the ones that take time and work.

In the Rumely complete lines there are machines big and little for every farm need.

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You won't give over-capacity either, because they are **accurate**! Send for our **free** book. It tells exactly why Thatcher bottles add to your profits.

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¶One man made a bountiful living for his family (he has 11 children) and put \$2,385 in the bank as the result of the season's yield from his 40 acres of irrigated land in this productive country. This is not cited as an exceptional case. ¶The "PROSPERITY STATES OF AMERICA" is the name we apply to Wisconsin, Minnesota, North Dakota, Montana, Idaho, Washington, Oregon, along the busy lines of the

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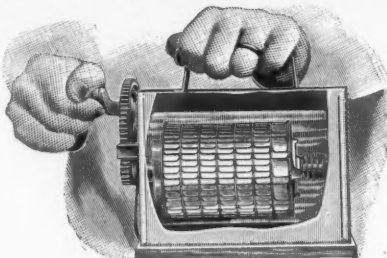
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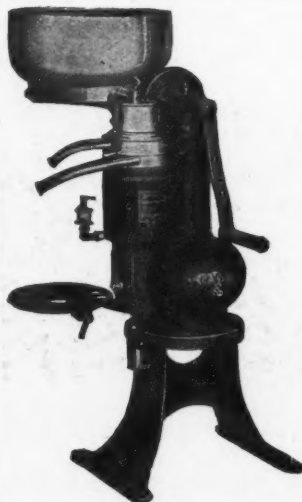
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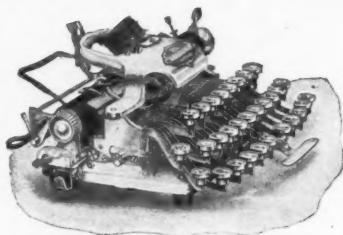
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
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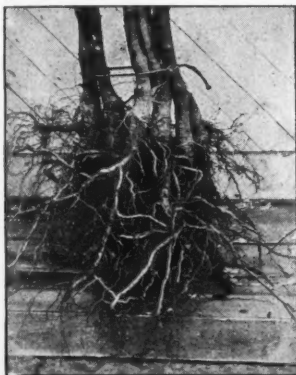
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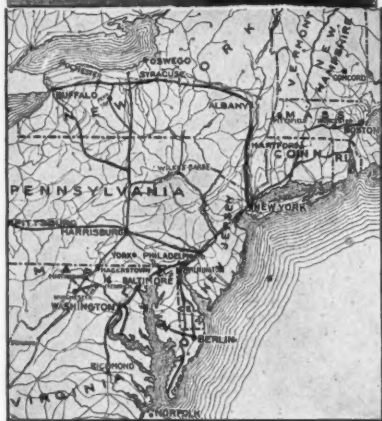
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